THE INSECT PEST SURVEY BULLETIN

A monthly review of entomological conditions throughout the United States

Volume 2 May 1, 1922 Number 2

BUREAU OF ENTOMOLOGY
UNITED STATES
DEPARTMENT OF AGRICULTURE
AND
THE STATE ENTOMOLOGICAL
AGENCIES COOPERATING

OUTSTANDING ENTOMOLOGICAL FEATURES FOR APRIL, 1922

The Hessian fly situation remains unchanged over the greater part of the wheat-growing sections of the country. Infestation is reported as very light in Ohio, Indiana, and Kansas. A moderate infestation is reported from Lancaster and Cass Counties, Nebr., and a rather alarming situation is reported from Madison and Warren Counties, Iowa.

Chinch bugs passed the winter with but very low mortality in Indiana, South Dakota, Illinois, and Missouri. Heavy rains in central Illinois destroyed some of the bugs. Floods in Missouri deposited large numbers of bugs over regions which had beer cleaned up by burning during the fall and winter. These bugs do not seem to have suffered from the effects of the water.

The green bug, with other aphids, is reported as quite serious in parts of Tennessee, This pest is spreading westward across the State of New Mexico where it is reported as destroying approximately 20 per cent of the wheat.

The false wireworms reported in the last number of the Survey Bulletin are still seriously destroying wheat in Nebraska. A similar condition is reported this month from the western half of South Dakota.

The San Jose scale is still on the increase in the Middle Atlantic and East-Central States, being reported as serious in Rhode Island, New York, New Jersey, Indiana, Wisconsin, Missouri, and Georgia. Dormant spraying in Georgia did not appear to be effective in the control of this pest.

A new enemy of grapes was reported from Nevada as doing serious damage in all vineyards in the Las Vegas Valley by eating into the buds. Specimens which accompanied the report have been identified as the chrysomelid Glyptoscelis squamulata Crotch.

Seed-corn maggot has never been observed in such numbers as are now present in southern New Jersey.

Two rather unusual tomato pests are reported from Arizona, Trichobaris mucorea Lec. and Ulus crassus Lec.

The pea aphis is reported as seriously threatening cannery peas in parts of Delaware. The region so seriously infested last year in the Santa Clara Valley of California by this pest is only very lightly infested so far this year.

Winter and spring scouting has shown the gipsy moth to be established over the entire central part of Connecticut. The new territory is as large as all known infested territory in this State up to this time. This pest is now about as near to the New York State line in Connecticut as it is in Vermont.

The worst infestation of screw-worm flies since the Bureau of Entomology field station was established at Uvalde in southwestern Texas appeared there about the middle of April.

Cattle from the scab-infested territory in Nevada have been shipped into California. Measures are being undertaken to prevent the establishment of this pest in California.

A NEW POTATO WEEVIL IN MISSISSIPPI: A weevil has been found in Stone County, Mississippi, in considerable numbers, which is injurious to potato, tomato, and turnip. It seems to be identical with Desiantha nociva Lea known in Australia as tomato weevil. It is about one-third of an inch long, though dull gray in color and bears on the wing covers a pale gray v-shaped mark. It has been known in Australia since 1908 and does much damage. The larvae feed upon the plants at night, hiding underground during the day. Southern entomologists, especially, are requested to keep a sharp lookout for this species. Professor Harned will try to find out how far it has spread and the Bureau of Entomology will help as far as possible.

INSECT PEST SURVEY BULLETIN

Vol. 2 May 1, 1922 No.2

CEREAL AND FORAGE-CROP INSECTS

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Pennsylvania P. R. Myers (April 10). "Mr. Smith found two eggs of Hessian fly on this date, this being the earliest record of the spring brood of the fly at Carlisle. This is four days later than was the case during 1921."

Ohio T. H. Parks (April). "Adults of the spring brood emerged in out-of-door cages in April. The brood is very light in all parts of the State, due to very little early sowed winter wheat."

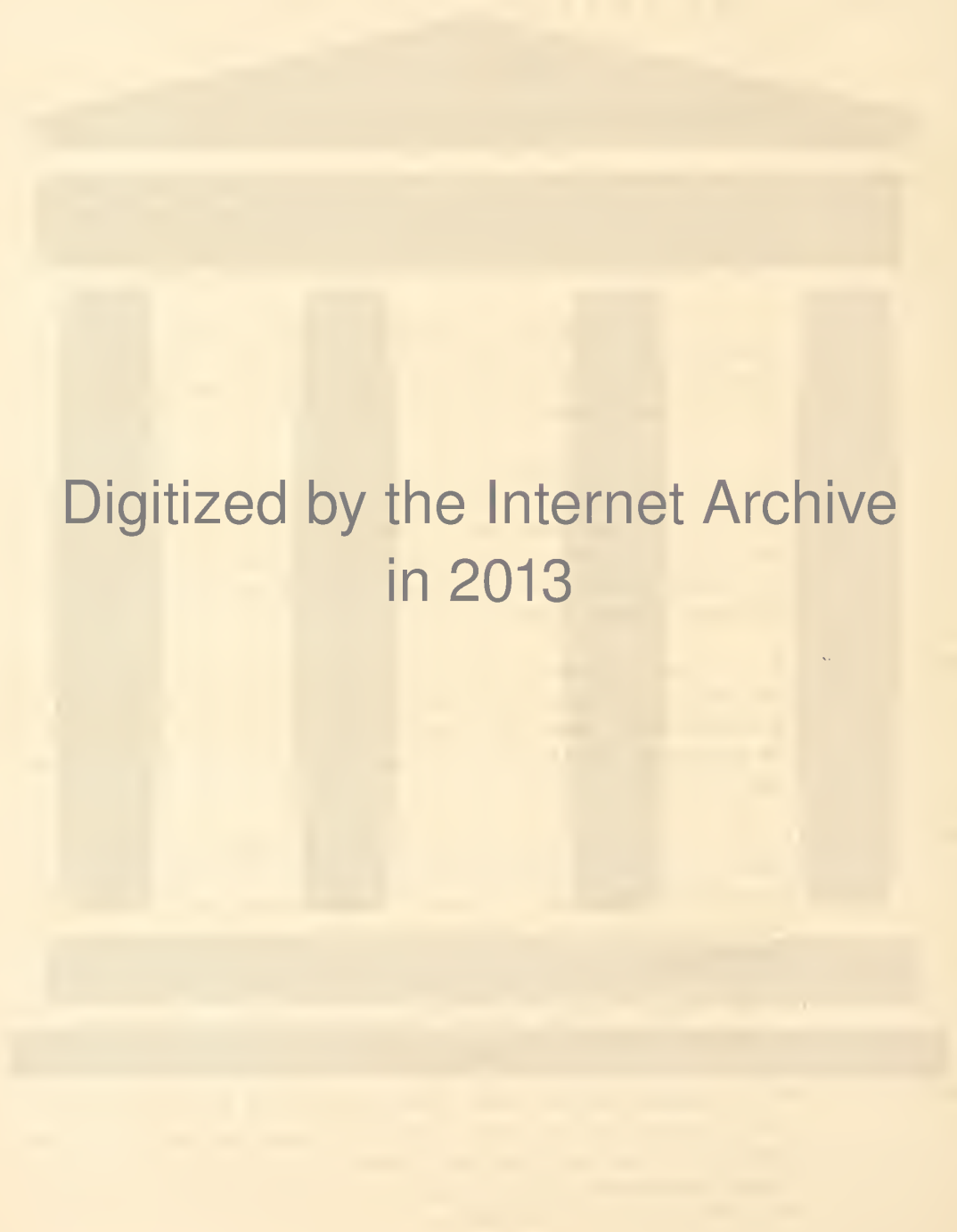
H. A. Gossard (April 27). "An examination made for Hessian fly eggs at Wooster, April 11, discovered none; however, flaxseeds which Prof. T. H. Parks had obtained in Williams County were yielding flies in jars at Columbus April 14. I found a few Hessian fly eggs at Wooster today, April 27."

Indiana J. J. Davis (April 15). "As reported last fall, sowing at the right time was almost universal in the State and consequently there is comparatively little fly infestation at present. In the early sown fields there is an abundance of the fly."

Illinois W. B. Cartwright (April 12). "First pupation March 19; first adults observed April 4. Only small part of brood has emerged to date. Oviposition scattered due to the rankness of growth of wheat. Records from Centralia."

W. P. Flint (April 18). "No eggs could be found on plants at Urbana on April 16."

Nebraska M. H. Swenk (April 15). "The situation is virtually unchanged since my last report. Examinations of wheat fields in the vicinity of Lincoln early in April revealed moderate infestation in northeastern Lancaster and western Cass Counties."



Iowa F. D. Butcher (April 18). "The Hessian fly is showing up in alarming numbers in Madison and Warren Counties this spring. Union County had very little fly infestation on the 15th. Very little wheat was sown in this county until after the September rains (September 22)."

Kansas J. W. McColloch (March 23). "Infestation in this State is very light. There is an area of rather heavy infestation in Wabaunsee County and reports of injury have been received from Osage and Coffey Counties. In all cases infestation is confined largely to volunteer wheat and very early sown wheat."

Missouri R. A. Blanchard (April 2). "First eggs found on this date. Last year the earliest date that eggs were found at Webster Groves was April 5. Wet snow occurred this year on March 31."

CHINCH BUG (Blissus leucopterus Say)

Indiana J. J. Davis (April 15). "The chinch bug seems to have wintered over safely and there are indications that the bugs will be more abundant and more widespread than last year."

Illinois W. P. Flint (April 9). "No general flight from hibernation as yet. Bugs mating on this date, moderate numbers killed by the heavy rains in central part of this State."

Missouri A. C. Burrill (April 4). "First flight of chinch bugs observed east of Montgomery City on March 25. Spring freshets have washed million of chinch bugs and deposited them along the edge of cornfields where very thorough burning had been carried on. The bugs have not been killed except where deeply buried. Winter has been unfavorable for satisfactory burning."

(April 21). "Slight flying going on today in Livingston County."

South Dakota H. C. Severin (April 28). "These insects are still in hibernating quarters but have passed the winter in excellent shape. The pest will do considerable harm if weather conditions remain favorable."

GREEN BUG (Toxoptera graminum Rond.)

Tennessee G. G. Ainslie (April 17). "Considerable evidence of damage during the past two or three weeks by various grain aphids, especially Rhopalosiphum prunifoliae, Macrosiphum granarium, Toxoptera graminum, and, apparently to somewhat lesser extent, Aphis maidis. One barley field which three weeks ago was in good condition is now considered an absolute failure; however, one or two heavy rains and predacious enemies have about terminated the outbreak."

Kansas S. J. Hunter. "Survey carried on during January and February by Mr. R. A. Beamer over the eastern third of the State shows that the green bug was present though not seriously injurious in Allen, Neosho, Montgomery, Bourbon, Linn, and Miami Counties. Much worse than last year in Cherokee County and by far worse in Labette County than in any other county in the State."

New Mexico R. Middlebrook (April 7). "This pest is much more serious in alfalfa and wheat than usual. It is spreading westward across the State and I estimate that 20 per cent of the infested wheat is damaged."

WHEAT STRAW-WORM (Harmolita grandis minuta How.)

Virginia F. M. Poos (March 25). "First emerging observed on this date at Charlottesville."

Illinois W. P. Cartwright (April 1). "First emerging of the season observed on this date at Centralia."

GREAT PLAINS FALSE WIREWORM (Eleodes opaca Say)

Nebraska M. H. Swenk (April 15). "Most serious losses to wheat during the period covered by this report (March 15-April 15) have been due to this insect, which was reported as seriously injurious in western part of Nebraska last fall. This spring immature larvae have resumed feeding and have injured or destroyed numerous fields of wheat. The injury began to be noticed during the last 10 days in March near Chappell in Deuel County. One field of 150 acres was almost completely destroyed by having the roots eaten away and another field of 200 acres in the same general locality that was badly injured last fall was completely destroyed this spring. As late as April 10 the worms were still at work according to reports from Big Springs in Deuel County."

South Dakota H. C. Severin (April 25). "We expect considerable damage in the western half of South Dakota from this insect this spring."

WHEAT WIREWORM (Agriotes mancus Say)

Missouri A. C. Burrill (April 21). "Doing serious damage at Chillicothe and Mooresville where 10 per cent of the straws have been gnawed off."

CORN

CORN EARWORM (Heliothis obsoleta Fab.)

Louisiana — T. H. Jones (April 10). "Mr. W. G. Bradley reports that a few larvae, the largest about three-quarters of an inch long, were observed in buds of young corn plants at Baton Rouge."

(April 13). "A few larvae, the largest nearly one inch long, were observed working on corn at Napoleonville."

ARMY WORM (Cirphis unipuncta Haw.)

Illinois — L. C. Chandler (March 23). "First moth caught in light trap at Carbondale on this date."

Missouri — L. Haseman (April 24). "Mr. B. E. Miller, county agent of Cass County, reports that on this date moths were visiting flower blossoms in numbers."

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata L.)

Louisiana — T. H. Jones (April 17). "Judging from observations and reports, larvae have not caused much damage to young corn in Louisiana so far this year. A very few larvae nearly full grown were taken at Baton Rouge on April 8 and at Napoleonville on April 13."

WHITE GRUBS (Phyllophaga spp.)

Indiana — J. J. Davis (April 15). "Continued reports of injury last fall show the rather general distribution of the 1920 brood in the State and the greater abundance of this insect than for many years."

Louisiana — T. H. Jones (April 15). "There has been some complaint in this section recently of injury by the beetles to foliage, especially of oak, pecan, and rose."

WESTERN FLEA-BEETLE (Phyllotreta pusilla Horn)

Arizona — Don C. Mote (March 21). "Doing sufficient damage to small patch of early corn in Salt River Valley to cause the owner to ask for help."

CORN LEAF APHIS (Aphis maidis Fitch)

Tennessee — G. G. Ainslie (April 17). "I have followed this insect for several years through the winter here in the throats of barley shoots, but have never seen it so abundant and vigorous so early as it is this year. Migrators are being produced in large numbers but so far I have found no other host than barley for this migrating generation."

ALFALFA

CLAY-BACKED CUTWORM (Feltia gladiaria Morr.)

Nebraska — M. H. Swenk (April 15). "Cutworms began working in alfalfa fields of the Platte Valley from Hall County westward about March 28, but up to date have not done much serious injury, though in some fields the new growth has been kept down as it appeared."

WESTERN ARMY CUTWORM (Chorizagrotis auxiliaris Grote)

Nebraska — M. H. Swenk (April 15). "About April 12, the alfalfa fields in Scottsbluff County showed infestation with the western army cutworm."

DINGY CUTWORM (Feltia subgothica Haw.)

Nebraska — M. H. Swenk (April 15). "This cutworm has also begun working in the alfalfa fields of the Platte Valley, where they have in some places kept the new growth cut down."

PEA APHIS (Illinoia pisi Kalt.)

New Mexico — R. Middlebrook (April 2). "Sent in as attacking alfalfa and wheat, by the county agent from Chaves and Eddy Counties."

CLOVER

WESTERN 12-SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

Oregon — A. L. Lovett (March 29). "Grower near Rickreall reported clover field of 20 acres sown in February practically cleaned out through the serious attack of this beetle in 2 days time."

GARDEN SLUGS (Agriolimax agrestis L.)

Oregon — A. L. Lovett (April 15). "Serious injury to field crops of clover, rye, and oats occurred in late fall and early winter. Fields near Dayton being so completely destroyed as to require replanting, and in some cases the succeeding crop was likewise seriously attacked. Vetch in the Station variety plats was heavily attacked. The combination of late winter snows and low temperature has noticeably checked this pest."

CLOVER-LEAF WEEVIL (Hypera punctata Fab.)

Ohio — T. H. Parks (April). "Larvae much less abundant than last year. Only one complaint of serious damage. Alfalfa much less affected than red clover."

H. A. Gossard (April 27). "The clover leaf weevil was received from Caledonia, April 24, and was observed to have done much damage about Chillicothe during the first three weeks of April, but has been attacked by Empusa and is now much reduced in numbers.

Illinois — S. C. Chandler (April 10). "Considerable numbers in all fields in Wabash County, one area being defoliated."

Missouri — L. Haseman (April 19). "This insect is worse than usual, especially in central Missouri. Continuous rain has assisted the disease in checking this pest in Jackson County; one sample was 100 per cent diseased. Mr. A. C. Burrill also noticed this disease on clover-leaf weevil in Shelby County."

LESSER CLOVER-LEAF WEEVIL (Phytonomus nigrirostris Fab.)

Ohio — T. H. Parks. "Beetles were flying to clover fields during the first two weeks in April. Hibernation took place in the largest numbers in the fallen leaves of woodlots. Damage to clover will probably appear by late May."

COW PEAS

COWPEA CURCULIO (Chalcodermus aeneus Boh.)

Georgia — O. I. Snapp (April 13). "Many of these weevils have been observed in wounds, crotches, etc.,of peach trees in orchards planted last year to cowpeas in the Fort Valley Section."

BEAN LEAF-BEETLE (Cerotoma trifurcata Foerst.)

Louisiana — T. H. Jones (April 6). "Mr. C. E. Smith reports the first adults of the season observed on this date at Baton Rouge."

F R U I T I N S E C T S

APPLE

GREEN APPLE APHIS (Aphis pomi DeG.)

Massachusetts — H. T. Fernald (April 25). "Green aphids on apple were reported as unusually abundant in the eastern part of the State; some of them there had hatched on April 5, yet the buds which had swollen had not commenced to break. In the northern part of Essex County they had hatched by April 11; in the Connecticut Valley they were hatching on the 9th and 10th, and in Berkshire County some at least had hatched by April 18; in the western part of the State they did not appear to be as numerous as in the eastern part. Cool weather, with standing water frozen over, came on the night of April 20, but does not appear to have been sufficiently severe to have affected the aphids."

New York — C. R. Crosby and assistants. "This insect was first observed on April 10 in Orleans County; by April 15th it was observed as common throughout the county but abundant in only two orchards. It is, apparently, not so prevalent in Orange County but is very abundant in the University orchard at Ithaca."

E. P. Felt (April 24). "Observed on April 16 in small numbers at Nassau in Rensselaer County."

New Jersey — M. D. Leonard (April 9). "Stem mothers present in small numbers on opening buds at Pompton."

Ohio — Herbert Osborn (April 18). "Have appeared in numbers at Columbus and are accompanied by cocinellids & syrphids."

Oregon — A. L. Lovett (April 15). "The season has been backward, cold, and rainy. Eggs began hatching near Corvallis on April 12. This species began hatching on March 22 in 1921 and on March 29 in 1920."

APPLE-GRAIN APHIS (Rhopalosiphum fitchii Fitch)

New York — C. R. Crosby and assistants. "This insect is reported as fairly abundant in Chautauqua, Ulster, Monroe, Onondaga, and Dutchess Counties. The first aphids were found on apple buds in Columbia County on April 9. Cold weather and rains have reduced the numbers of this pest considerably about Ithaca."

L. F. Strickland (April 4). "First observed on this date at Lockport."

P. J. Parrot (April 13). "First observed on this date at Geneva."

New Jersey — M. D. Leonard (April 9). "Stem mothers out on opening buds in small orchards at Pompton."

Ohio — H. A. Gossard (April 27). "This insect appeared quite numerously in many orchards well scattered over the State. I noted a good many at Chillicothe April 5 when the bloom had just reached the pink stage. In central Ohio they were sufficiently numerous in an orchard at Westerville so that nicotine sulphate was added to the spray. Syrphus-fly larvae appearing numerously about the middle of April were a check to aphid multiplication."

Indiana — J. J. Davis (April 15). "Has been unusually abundant this year. Numerous reports and specimens have been received from all parts of the State, beginning in the southern end of the State two or three weeks ago and continuing up to the present time, the last reports coming from the northern end of the State."

Iowa — F. D. Butcher (April 18). "Has appeared in large numbers on opening buds. A few cases show the buds already starting to turn brown. Efforts are being made to get orchardists to spray for this pest."

Missouri — L. Haseman (March 25). "Seems to be widely distributed over the entire State. Since coming to Missouri I have never seen the winter eggs of this aphis as abundant as they are this winter. From here south the eggs are hatching and some fruit growers from the southern part of the State report the young lice as completely encrusting the expanding buds. They have been hatching at Columbia for the past week and some of the trees are also very heavily infested."

(April 19). "This insect seems to be coming under the control of its natural enemies. They have not yet started to migrate in central Missouri. Apples are in bloom at the present time and we expect migration soon."

ROSY APPLE APHIS (Anuraphis roseus Baker)

New York — C. R. Crosby and assistants (April 18). "Small numbers of these aphids were observed during the past week at Ithaca and Morton."

Pennsylvania — S. W. Frost (April 15). "Very little infestation by rosy apple aphis in this part of the State this year."

New Jersey — M. D. Leonard (April 9). "A few stem mothers observed on opening buds at Pompton."

Maryland — E. N. Cory (April 14). "Rosy apple aphids were much more numerous than usual in the Hagerstown region. Rainy weather interfered with spraying and lime-sulphur was applied too late to have much effect."

Oregon — A. L. Lovett (April 15). "Newly hatched hymphs appeared in orchards near Corvallis on March 30. Nymphs appeared on March 9 in 1921 and on March 19 in 1920."

WOOLLY APPLE APHIS (Eriosoma lanigerum Hausm.)

New York — C. R. Crosby and assistants. "This insect is reported as serious on young Wealthy trees in an orchard in Orleans County. Infested material has also been observed at Larchmont and in Ulster County."

CODLING MOTH (Carpocapsa pomonella L.)

Illinois — W. P. Flint (April 18). "About 50 per cent of the overwintering brood on trees in orchards had pupated by April 14. Apple blooms just opening today. Peach in full bloom."

Missouri — L. Haseman (April 19). "This insect seems to be less numerous than usual. We believe this to be due to the short crop of last year. Overwintering larvae are pupating here in breeding cases but no moths have, apparently, emerged to date."

CIGAR CASE-BEARER (Coleophora fletcherella Fern.)

New York — C. R. Crosby and assistants. "This insect is being observed in neglected orchards in small numbers in Ulster, Columbia, and Orleans Counties."

Missouri — A. C. Burrill (March 18). "Never have been in a State where this pest is so common. Most of the larvae have passed the winter successfully."

BUD MOTH (Tmetocera ocellana D. S.)

Connecticut — D. A. Porter (April 11). "First larvae observed entering a bud on this date at Wallingford."

(April 22). "Emergence from hibernation has been very slow, due to cold weather. On this date by actual count not over 25 per cent of the larvae have left winter quarters."

New York — C. R. Crosby and assistants reported this insect as abundant in Columbia County and observed in small numbers in Ulster and Orleans Counties.

Pennsylvania — S. W. Frost (April 15). "The bud moth seems to be abundant this year."

Orggon — A. L. Lovett (April 10). "The first larvae were observed feeding and active on this date at Corvallis."

LESSER BUD MOTH (Recurvaria nanella Huebn.)

Connecticut — D. A. Porter (April 10). "Numerous moths have left winter quarters and are entering apple buds which are now showing one-fourth to one-half inch of green at Wallingford."

RED-BANDED LEAF-ROLLER (Eulia velutinana Walk.)

Pennsylvania — S. W. Frost (April 15). "Adults issued from their hibernating quarters on April 13 in Adams County. Up to this date no eggs have been laid."

TENT CATERPILLAR (Malacosoma americana Fab.)

Massachusetts — H. T. Fernald (April 25). "Tent caterpillarseggsmasses are very abundant in the eastern part of the State, and more so in the western part than was the case last year. At Amherst, eggs were hatching from the 12th to the 14th of April; in Plymouth County they were hatching on the 5th; in Bristol County on the 7th; and in Essex County, near Haverhill, on the 11th."

Rhode Island — A. E. Stene (April 25). "I have found large numbers of the tent caterpillars hatching, and we are apparently going to have them in unusual abundance."

Connecticut — D.A. Porter (April 8). "Eggs of this species are commencing to hatch at Wallingford."

New York — E. P. Felt (April 24). "Mr. L. W. Jones reports that eggsand nests are common at Bainbridge."

Delaware — C. O. Houghton (April 18). "Eggs were hatching here on March 29. Nests of this species appear to be more numerousnthan usual this year about Newark."

Oregon — A. L. Lovett (April 14). "The northwestern tent caterpillar, Malacosoma pluvialis Dyar, seems to be more common than usual this year about Corvallis. First eggs were observed hatching on this date."

CANKERWORMS (Paleacrita vernata Peck and Alsophila pometaria Harris)

New York — G. E. Smith (March 14). "Moths of the spring cankerworm are ascending the trunks of trees in considerable numbers."

Ohio — H. A. Gossard (April 27). "Cankerworm eggs received from Cleveland were hatching April 24."

Wisconsin — E. L. Chambers (April 6). "Female moths of the spring canker-worm have been seen on trees since March 30. Egg laying has not yet been observed at Whitewater. Fall cankerworm eggs were laid in large numbers in November. These have notyet begun to hatch."

BUFFALO TREE-HOPPER (Ceresa bubalus Fab.)

New York — J. B. Palmer (April 15). "Young peach trees were injured considerably by the egg punctures of this insect at Owego. We also noticed considerable damage to young apple trees in Onondaga and Chautauqua Counties."

Indiana — J. J. Davis (April 15). "Numerous twigs showing injury by this insect have been sent in, particularly from the northern part of the State."

Nebraska — M. H. Swenk (April 15). "Because of the leafless condition of the trees, we have received inquiries concerning the work of this insect which seems to have been prevalent in the orchards last season."

Missouri — A. C. Burrill. "Very heavy infestation must have occurred last year in Cape Girardau County where practically all of the young trees had hundreds of egg scars."

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Rhode Island — A. E. Stene (April 25). "The San Jose scale is showing up in larger numbers than at any time during the past three or four years."

New York — C. R. Crosby and assistants reported this insect as occurring quite generally over Wayne County.

Maryland — E. N. Cory (March 16). "This insect seems to be on the upward swing of a cycle of increase, from observations made at Preston, Easton, Denton, Berlin, Snow Hill, and Princess Anne."

(March 24). "This increase seems to be due to the great reduction of natural enemies following the almost total absence of this scale for a period of years."

Ohio — H. A. Gossard (April 27). "During late March and April the San Jose scale was received from many points throughout the State."

Indiana — J. J. Davis (April 15). "As in neighboring States, the San Jose scale has increased in Indiana and is now doing a great amount of injury. Counts in Indiana show a low comparative mortality similar to that reported by Chandler in Illinois in the last number of this Bulletin."

Illinois — S. C. Chandler (April 13). "Very little burning of leaves in plats sprayed with dormant sprays when leaves were one-half inch long. Oils were little or no worse than sulphur."

Wisconsin — S. B. Fracker (March 17). "Campaigns carried on at Sheboygan and Beloit in 1918-20 were, apparently, successful. An extensive control campaign is being put on this spring at Whitewater and an eradication project of this pest is under way at LaCrosse. This scale is not thriving but will survive most winters."

Missouri — L. Haseman (March 25). "The San Jose scale during the past summer and fall spread more rapidly than usual and most of the commercial-bearing orchards have trees badly encrusted. A State-wide campaign has been started in Missouri this winter, looking to the development of a more general application of dormant spraying."

(April 19). "Most encouraging reductions have been secured by the campaign started earlier in the spring. Last year was a favorable one for scale increase."

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York — C. R. Crosby and assistants reported considerable infestation throughout the apple-growing sections of the State."

Ohio — H. A. Gossard (April 27). "During late March and throughout April specimens of the oyster-shell scale were received from many points throughout the State."

Indiana — J. J. Davis (April 15). "The oyster-shell scale is most abundant and destructive in the northern half of Indiana. From last year's experience we are not strongly recommending dormant spraying for the control of this pest. These observations seem to indicate that all eggs of the one-brood species hatch within a period of twelve or fourteen days. Similar observations on the hatching of this pest have been made by Mr. H. F. Dietz."

Nebraska — M. H. Swenk (April 15). "Numerous inquiries have been received concerning the oyster-shell scale during the past month."

Wisconsin — S. B. Fracker (April 18). "This insect is important enough to require control measures in the southern part of the State."

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

Illinois — S. C. Chandler (April 3). "First adult of the season observed at Olney on this date."

(April 13). "First eggs of the season observed on this date. Many weevils on trees, mostly mating. Considerable injury on trees which are not well leaved out."

Ohio — H. A. Gossard (April 27). "The apple flea-weevil was observed to be appearing very numerously in orchards not cultivated at Delaware, Ohio, April 7 and 8. The earliest comers were noticed April 5. By April 19 the entire brood appeared to be active and had done severe damage to the buds and partly unfolded leaves."

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Connecticut — Philip Garman (April 23). "Eggs slightly more abundant than last year in New Haven County."

New York — C. R. Crosby and assistants reported the eggs of this insect as comparatively abundant in Tompkins, Broome, Ulster, and Orleans Counties.

Pennsylvania — S. W. Frost (April 15). "This insect is noticeably serious this spring in Adams County."

Maryland — E. N. Cory (April 18). "A preliminary survey of most of the eastern shore and part of western Maryland has disclosed this mite in the following places: Denton, Easton, Skimpton, College, Branchville, Havre de Grace, Cumberland, Lonaconing, and Oldtown."

PEAR

PEAR THRIPS (Taeniothrips inconsequens Uzel)

New York — C. R. Crosby and assistants reported this insect as appearing in great numbers where infestation was bad last year in Ulster County. Their first date of appearance in Columbia County was April 9. By April 15 they were abundant and inside of the buds in this County. By April 15 they were found in large numbers in Nassau County and also quite plentiful in parts of Orleans County."

PEAR PSYLLA (Psylla pyricola Foerst.)

Connecticut — W. E. Britton (April 13). "Eggs very abundant on twigs on this date. Apparently they have just been laid. This insect is seemingly more abundant than usual."

New York — C. R. Crosby and assistants. "Flies were appearing in Orleans County on March 12. First eggs were found in Ontario County on March 23 and in Ulster County on April 5. Flies were abundant and egg laying was progressing in Monroe County on April 5. By April 7 eggs were found in abundance in Wayne County. On April 8 adult flies were abundant in Genesee County and fairly abundant in Columbia County. Eggs were observed for the first time on April 11 at Geneva. By April 14 egg laying was progressing rapidly in Genesee County while very few eggs were observed in Onondaga County. On April 15 flies were found in large numbers in Nassau and Columbia Counties.

PEACH

SANEJOSE SCALE (Aspidiotus perniciosus Comst.)

New York — J. B. Palmer (April 8). "Several young trees badly infested in Ulster County."

Georgia — O. I. Snapp (April 13). "The winter sprays have failed to control the San Jose scale in a number of orchards in the Georgia peach belt this year. In one large orchard that had received a thorough application of 1-8 lime-sulphur solution thousands of crawlers were noticed on this date and many practically full-grown living adults."

PEACH BORER (Aegeria exitiosa Say)

New York — C. R. Crosby and assistants report that 5 acres of young peaches in Ulster County are seriously infested. Badly infested orchards were also noticed in Nassau and Monroe Counties.

Georgia — O. I. Snapp (April 13). "All growers exceedingly well pleased over results obtained from paradichlorobenzene. A quarter of a million pounds were used by the commercial growers in the State last fall. Results of much experience with the use of this chemical in orchards containing young trees are encouraging."

Indiana J. J. Davis (April 15). "Paradichlorobenzene is now being used by practically all peach growers of the State, as well as by a great many who only have a few trees."

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Georgia O. I. Snapp (April 1). "During the latter part of March and the first of April these insects were quite abundant on peach blooms often eating from the calyces and destroying the small peaches."

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Georgia O. I. Snapp (April 13). "The curculio suppression campaign of 1921 is, without doubt, responsible for the decrease in the number of adults appearing from hibernation as compared with last season. First adults appeared March 4. First insects noted in the field April 3. First larvae noticed April 6 at insectary."

Louisiana T. H. Jones. "First evidence of injury noted on March 29. Very small larvae and young drops have been observed. Drops plentiful April 17 under the same trees and larvae nearly full grown at Baton Rouge."

RASPBERRY

RED-NECKED CANE-BORER (Agrilus ruficollis Fab.)

Wisconsin S. B. Fracker (April 18). "Injurious in small fields about Madison. Distribution irregular."

ROSE SCALE (Aulacaspis rosae Bouche)

Indiana J. J. Davis (April 15). "The rose scale has been repeatedly received the past month. In all cases the host has been raspberry."

CURRANT

CURRANT APHIS (Myzus ribis L.)

New York P. J. Parrott (April 10). "Observed on the opening buds for the first time this year at Geneva."

IMPORTED CURRANT WORM (Pteronidia ribesi Scop.)

Delaware C. O. Houghton (April 16). "Observed both males and females about the bushes and found a few leaves eaten by the newly hatched larvae at Newark on this date."

GRAPE

GRAPEVINE EPIMENIS (Psychomorpha epimenis Drury)

Delaware — C. O. Houghton (April 16). "Observed this species ovipositing on grapevines. The eggs were deposited at intervals of a few seconds and were tucked away in crevices in the bark and around the bodies. The time was 2 p. m."

STRIPED TREE CRICKET (Oecanthus nigricornis Walk.)

New York — C. R. Crosy (March 9). "Infested canes were received on this date from Sanborn."

Indiana — J. J. Davis (April 15). "Eggs of this insect in grape, raspberry, and peach twigs have been sent to us frequently the past few months."

GRAPE FLEA-BEETLE (Haltica chalybea Ill.)

Indiana — J. J. Davis (April 15). "Adults were received from one correspondent at New Albany April 11 with the report that it was burning and eating grape patches."

[illegible] — Glyptoscelis squamulata Crotch;

Nevada — C. W. Creel (April 21). "Mr. J. H. Wittener, county agent of Clark County, reports that this insect is doing serious damage to all vineyards in Las Vegas Valley. They, apparently, do their work at night, boring small holes into the buds just before leafing out, eating out, presumably, the heart of the bud growth and spend the day hiding under the bark of the vines. This is the first report of this insect to come to the attention of the University of Nevada."

CITRUS

FLORIDA FLOWER THRIPS (Frankliniella bispinosus projectus Watson)

Florida — Jeff Chaffin (April 6). "Mr. Wm. Gomme reports that he has not seen this insect so bad in years as it is this year in Polk County. A similar report is sent in from Lee County by Mr. H. E. Stevens and by Mr. C. D. Kime from Orange County."

CITRUS WHITE FLY (Dialeurodes citri Ashm.)

Florida — Jeff Chaffin (April 15). "There is a great deal less infestation by the white fly this year than last, probably due to climatic conditions which favored fungous diseases."

T R U C K C R O P I N S E C T S

POTATO AND TOMATO

POTATO BEETLE (Leptinotarsa decemlineata Say)

Missouri — A. C. Burrill (April 19). "The first beetle seen above ground this year was observed today south of Kansas City."

Florida — Jeff Chaffin (April 10). "Mr. James Kerr reports that this insect is more abundant than usual at Chipley in Washington County. In the northwestern part of the State on the peninsula around Hastings where thousands of bushels are grown one never sees this beetle."

Louisiana — T. H. Jones. "Mr. C. E. Smith reports that the first eggs were observed outdoors on March 18 at Baton Rouge. On April 5, the adults were numerous and eggs and young larvae were observed in the field."

SEED-CORN MAGGOT (Hylemyia cilicrura Rond.)

New Jersey — D. E. Fink (April 15). "This insect is now abundant throughout the southern half of the State and at Dividing Creek in the extreme southern part of the State it has never before been observed in such numbers. Although in evidence from the first of the month, they really became very abundant only within the past four or five days. They are already depositing eggs in the soil and such crops as peas, beans, and potatoes may show injury very soon."

LEAF-FOOTED PLANT-BUG (Leptoglossus phyllopus L.)

Louisiana — T. H. Jones (April 10). "Mr. G. L. Tiebout reports damage by the adults in Tangipahoa Parish and about Baton Rouge, the injury consisting of wilting of the terminal growth due to feeding."

SOUTHERN GREEN PLANT-BUG (Nezara viridula L.)

Louisiana — T. H. Jones (April 12). "C. W. Davis reports that these insects are giving a good deal of trouble in this section at Homer. They suck the top of the plants and the bud immediately wilts. These plants do not die but rarely amount to anything."

(April 5). "Adults are numerous on radish which is going to seed and are common on Irish potatoes at Baton Rouge. The wilting of terminal growth of the latter is common. Egg clusters and small nymphs were also observed on this date."

Trichobaris mucorea LeC.

Arizona — Don C. Mote (April 3). "Mr. Skinner reports that this beetle is abundant on young tomatoes, dozens feeding upon each plant in the garden at Tempe. The feeding habits are somewhat different from those of Ulus crassus. The beetles gouge furrows in the stem extending from the soil line about one-half an inch up the plant."

April 15. "Mr. Skinner reports that all the beetles have disappeared.

Ulus crassus Lec.

Arizona — Don C. Mote (March 30). "Mr. R. Bevin reports that this insect has never been noticed in his district before, though they were very abundant last July in another district. Practically all the tomato plants are girdled near the soil line in the Salt River Valley north of Phoenix. The beetles feed on the stems, which they girdle, and when the plant falls they collect in the shade and feed upon the fallen plant. Beetles were observed mating on this date."

CABBAGE

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

New York — H. C. Odell (April 14). "First adults were observed on this date in Nassau County."

IMPORTED CABBAGE WORM (Pontia rapae L.)

Delaware — C. O. Houghton (April 16). "Adults are quite numerous here now. They were first observed on April 8."

CABBAGE APHIS (Brevicoryne brassicae L.)

New Mexico — R. Middlebrook (April 7). "These insects made their appearance very late in Donna Anna County, and seem to be very few in numbers. Coccinellid beetles are quite numerous among the aphids."

HARLEQUIN CABBAGE BUG (Murgantia histrionica Hahn)

Louisiana — T. H. Jones (April 4). "Mr. R. W. Axt reports that the adults are common on radishes about Baton Rouge. No other stages have been observed to date."

TWELVE-SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

New Mexico — R. Middlebrook (April 1). "These beetles are extremely abundant this year, especially on cabbage, where they have seriously affected 50 per cent of the plants and have killed out the cabbages at Rincon, Hatch, and Garfield."

ONION THRIPS (Thrips tabaci Lind.)

Delaware — C. O. Houghton (April 1). "A thrips, probably this species, has seriously injured cabbage in the University greenhouse at Newark this winter."

STRAWBERRY

STRAWBERRY HOOF-WEEVIL (Otiorhynchus rugifrons Gyll.)

Oregon — S. H. VanTrump. "Twenty-two per cent of all strawberries inspected in Marion and Polk Counties are infested. The percentage of infestation does not appear so great as last year owing to the fact that the infested territory of 1921 has not been inspected this year."

STRAWBERRY LEAF-ROLLER (Ancylis comptana Froehl.)

Indiana — J. J. Davis (April 15). "A number of requests for control of this insect have been received."

STRAWBERRY FLEA-BEETLE (Haltica ignita Ill.)

Louisiana — T. H. Jones (March 17). "Mr. P. Dreud reports that they are giving the farmers no end of trouble this season at Ponchatoula."

STRAWBERRY LEAF-BEETLE (Paria canella Fab.)

Louisiana — T. H. Jones (March 4). "Mr. C. E. Smith reports that considerable damage has been noted by these insects in the field of Baton Rouge."

STRAWBERRY WEEVIL (Anthonomus signatus Say)

Maryland — J. A. Hyslop (April 12). "Quite seriously cutting the buds in the southeastern part of Montgomery County, much more numerous than last year. Severe killing frosts, however, have destroyed the crop to such an extent that the amount of weevil injury can not be estimated."

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

Alabama and Georgia — N. F. Howard (March 29). "This beetle has not as yet been observed in the field, but observations in hibernating cages indicate a very high percentage of survival. No beans are up in the field in the Birmingham district. At Thomasville, Ga., near the Florida line, a few beans are up and in one instance the beetles have been observed in the field; here also, the survival over winter is very high. Great decrease in sale of beans by city merchants in Birmingham indicates an appreciable reduction of bean acreage due to this pest."

PEAS

PEA APHIS (Illinoia pisi Kalt.)

California — Roy E. Campbell (April 22). "Careful inspections of the pea fields of the Santa Clara Valley, where several thousand acres of both cannery and market peas were very severely damaged a

year ago by the pea aphis, failed to show the presence of the aphis up to April 20, except in very small numbers. Only two fields were found in which the aphis was present in sufficient numbers to indicate that any possible damage would be done this season. The peas are well in bloom, and harvesting will begin in less than a month; therefore, all indications point to little or no damage from the pea aphis in this section for the present year."

Delaware C. H. Popenoe (April 28). "The pea aphis has appeared in such threatening numbers in Delaware as to attract the attention of commercial canneries."

CUCUMBERS

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Indiana J. J. Davis (April 15). "This insect has not yet made its appearance, probably due to the frequent cold rains which have appeared in this section."

Missouri A. C. Burrill (April 22). "First adult observed today near Utica."

MELONS

MELON APHIS (Aphis gossypii Glov.)

Indiana J. J. Davis (April 15). "Requests for information relative to the control of this insect have been received throughout the spring."

Florida Jeff Chaffin. "On April 1 Mr. H. E. Stevens reported that this insect had made its appearance within the past ten days in the Fort Myer district where it did severe damage last year to watermelons. K. C. Moore reported on April 6 that complaints were being received from farmers all over Marion County."

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Nebraska M. H. Swenk (April 15). "The squash bug was reported as coming from hibernation in Holt County and in Deuel County a few days later."

F O R E S T A N D S H A D E-T R E E I N S E C T S

GIPSY MOTH (Porthetria dispar L.)

Connecticut — W. E. Britton (April 24). "Scouting by State and Federal men shows a widespread scattered infestation throughout Tolland, Hartford, and the northern edges of Litchfield and Middlesex Counties. Even Wolcott, in New Haven County, is slightly infested. This about doubles the area in Connecticut known to have been infested last year. Increase apparently due to wind spread in 1920 and 1921. In a few cases old egg clusters were found which hatched in 1921 and new ones near by."

UMBRELLA ANT (Atta texana Buck.)

Louisiana — T. H. Jones (December 27, 1921). "A few years ago I recorded, in the Journal of Economic Entomology, the occurrences of the ant Atta texana at Glenmora in Rapides Parish, this State. I believe this was the first notice in print of its occurrence outside the State of Texas. I have recently received specimens sent in by Mr. J. H. Cook, of Minden, La., with the information that they were secured from " sec 26 T. 18 R 8 about three miles southwest of Taylor Station (Bienville Parish) on the V. S. and P. R. R." Mr. Cook also writes that he has found a colony at Minden "that looks like the same kind." It is quite possible that were a careful survey made, this ant would be found to have a much more widespread distribution in the State than our present records indicate."

BOX ELDER

BOX ELDER PLANT-BUG (Bentocoris trivittatus Say)

Nebraska — M. H. Swenk (April 15). "Indications are that this insect will be unusually obnoxious this year. They were reported coming out from hibernation in Hamilton County on March 12th, in Phelps County and Boone County on March 17th and from other Counties later on in March."

ASH

OYSTER-SHELL SCALE (Lepidosaphes ulmi L.)

New York — C. R. Crosby and assistants (April 18). "These insects have been reported as very abundant in Ulster County and also in Ithaca on ash trees."

OAK

Andricus coronus Bedt.

Georgia — O. I. Snapp (March 25). "Very bad on water oaks used as ornamentals in Fort Valley."

LOCUST

LOCUST BORER (*Cyllene robiniae* Forst.)

Indiana — J. J. Davis (April 15). "The locust borer has been reported as destructive by several correspondents in southern Indiana."

PINE

PINE BARK LOUSE (*Chermes pinicorticis* Fitch)

Delaware — C. O. Houghton (April 17). "More abundant than usual about Wilmington."

Missouri — A. C. Burrill (April 13). "Underside of limbs of trees at Shelbyville were white for several yards, almost as though whitewashed from below."

DOUGLAS FIR

DOUGLAS FIR TENT CATERPILLAR (*Euschausia argentata* Pack.)

Oregon — A. L. Lovett (April 15). "This caterpillar hatches in the fall and feeds for a time, passing the winter in compact webs similar to those of the brown-tail moth of the East. The larvae are active very early in the spring and are about one-half grown at the present date. A tachinid is a very effective parasite of this insect, destroying from 1 to 80 per cent of the caterpillars, depending upon the locality. The pest is very general on fir throughout western Oregon, trees having twelve or more nests."

YEW

Pseudococcus comstocki Kuwana

New York — C. R. Crosby (February 27). "Observed shrubs badly infested with this scale insect in Nassau County."

G R E E N H O U U S E A N D O R N A M E N T A L S

BOXWOOD

BOXWOOD LEAF-MINER (Monarthropalpus buxi Labou.)

New York — C. R. Crosby (March 8). "Patches badly infested at Sea Cliff, Long Island."

E. P. Felt (April 24). "Mr. Wm. Beutenmueller reports that the boxwood leaf-midge is quite abundant and injurious in Woodlawn Cemetery in New York City."

Paratetranychus yothersi McGregor.

Maryland — E. N. Cony (April 18). "This insect did serious injury at Havre de Grace and Baltimore last year and was observed for the first time this year on the above date."

CHRYSANTHEMUM

CHRYSANTHEMUM GALL-MIDGE (Diarthronomyia hypogaea Loew.)

Indiana — J. J. Davis (April 15). "The chrysanthemum gall-midge has been the subject of numerous inquiries from florists. This is one of the most serious greenhouse pests in Indiana."

GREENHOUSE THRIPS (Helicothrips haemorrhoidalis Bouche)

New York — C. R. Crosby (March 17). "Badly infested chrysanthemum plants were sent in from Oneida on this date."

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

New York — E. P. Felt (April 24). "Mr. R. E. Horsey reports that this insect has been so abundant in Highland Park on Euonymus radicans and its varieties that, with the exception of one planting, they are all cut to within 6 or 8 inches of the ground and sprayed with miscible oil. This pest has caused greater loss than any scale insect in recent years. It is not readily controlled on evergreen trees since the leaves are spoiled with spraying with miscible oil."

Maryland — M. D. Leonard (April 24). "Euonymus bushes badly infested at Lauraville."

CYCLAMEN

CYCLAMEN MITE (Tarsonemus pallidus Banks)

Wisconsin — E. L. Chambers (March 20). "Unusually severe losses in greenhouses during the winter in Madison, Beloit, and Milwaukee. One Beloit florist reports 600 cyclamens a total loss."

RHODODENDRON

RHODODENDRON BORER (Sesia rhododendri Beut.)

Connecticut — W. E. Britton (April 24). "Serious injury to plants at New Haven and South Manchester. Nothing like it has been seen around here before. Many plants are dead."

ROSE

ROSE SCALE (Aulacaspis rosae Bouche).

New York — C. R. Crosby and assistants (March 28). "Badly infested rose bushes observed at Newburgh and Ithaca."

E. P. Felt (April 24). "Somewhat numerous on both moss and rugosa rose varieties in Highland Park, though it does not seem to bother other roses in the same patch."

HOUSEHOLD INSECTS

MYRIAPODS (*Julus* sp.)

Nebraska — M. H. Swenk (April 15). "Last fall there was an unusual number of milipedes. In many localities in the State they became a pest, trying to make their way into the basements of houses, both on farms and in the cities. Reports during the period above covered (March 15-April 15) indicate their continued presence in basements and under the mulching of strawberry beds."

TERMITES (*Reticulitermes flavipes* Kol.)

Indiana — J. J. Davis (April 15). "Have received several reports from the southern half of the State within the past two weeks, reporting injury in dwellings."

Louisiana — Ed. Foster (April 6). "Serious structural damage to a dwelling house through this insect is reported from New Orleans. In this case the insects swarmed a couple of days ago, somewhat late for this region. This is the third call that I have had and in no case has any creosoted timber been used in construction."

INSECTS ATTACKING DOMESTIC ANIMALS

CATTLE

OX WARBLE (*Hypoderma lineatum* DeVill. and *H. bovis* DeG.)

Indiana — J. J. Davis (April 15). "This insect is rather more severe at Lafayette than this time a year ago."

Illinois — W. P. Flint (April 18). "A very few maggots in advance stage of development were observed at Aurora on this date."

Texas — F. C. Bishopp (April 28). "Reports received on these pests show that the infestation of the past winter and spring has been unusually irregular. The abundance of grubs was about normal in southwestern and north-central Texas but in central west Texas they seem to be more numerous than usual."

HORSEFLIES (Tabanidae)

Louisiana — T. H. Jones (April 15). "Horseflies and deer flies have already begun to appear in this section, though as yet not in numbers. The first specimen was taken March 28 and up to date what appeared to be the following species were taken: *Tabanus megierlei*, *T. purilus*, *T. trimaculatus*, *Chrysops pikei*, *C. callidus*, and *C. lugens*."

HORN FLY (*Haematobia irritans* L.)

Texas — F. C. Bishopp. "The first horn flies appeared in the vicinity

of Dallas about March 10. They became sufficiently numerous by April 1 to be very annoying to livestock, but their abundance is probably not above normal."

SCREW-WORM (Chrysomya macellaria Fab.)

Texas — F. C. Bishopp(April 28). "These flies are reported by Mr. D. C. Parman to have appeared about the middle of April in swarms greater than have been observed since the Bureau station was established at Uvalde nine years ago. Their abundance on the plateau region at Sonora, as reported by Mr. O. G. Babcock, is about normal for this time of year and their prevalence in the vicinity of Dallas is practically normal. Their unusual abundance in the southwestern part of the State, however, indicates that the depredations of the insect will probably be heavier than normal this year. The rains which have occurred throughout west Texas will, no doubt, favor their breeding in that region."

BLACK BLOW-FLY (Phormia regina Meig.)

Texas — F. C. Bishopp (April 28). "This species, which is responsible for wool maggots in sheep in the Southwest, was very abundant in the vicinity of Dallas in March and is still increasing. Mr. O. G. Babcock reports this species to be unusually abundant for the middle of April in the vicinity of Sonora."

BITING LOUSE OF CATTLE (Trichodectes scalaris Nitz.)

New York — R. Matheson. "Large quantities of material, showing serious infestation by this pest, were received from Schuylerville, in January, and from McGraw, in March."

Texas — F. C. Bishopp (April 28). "This species was not as prevalent throughout north-central Texas as it has been in many years, but a very few heavily infested animals were observed."

SUCKING LICE OF CATTLE

Texas — F. C. Bishopp (April 28). "None of the three species of sucking lice were as abundant on cattle the past winter and spring as is usual in this section."

CATTLE SCAB (Psoroptes communis Furst.)

California — (Weekly news letter, State of California Department of Agriculture) (April 15). "Last week Dr. Edward Records, State Quarantine Officer of Nevada, notified Chief of the Division of Animal Industry of this State that six bulls had been purchased from a herd in Carson Valley, Nevada, where cattle scab is known to exist, and shipped to California in the vicinity of Topaz and Coleville. Measures are being taken to prevent the introduction of this pest from the colony established in California."

POULTRY

POULTRY FEATHER MITE (*Liponyssus silviarum* Can. & Fanz.)

Indiana — J. J. Davis (April 15). "Poultry feather mite again showed up in abundance at Lafayette. Experiments conducted by Mr. Cleveland demonstrated that quite effective results are to be attained by the use of superfine sulphur as a dust for winter use."

FOX

EAR MITE (*Otodectes cynotis* Hering)

Massachusetts — H. T. Fernald (April 25). "Specimens of the ear mite were found on January 20, causing considerable trouble working in the ears of domesticated foxes at a fox farm in this State."

I N S E C T S A T T A C K I N G S T O R E D P R O D U C T S

BEAN WEEVIL (Mylabris obtectus Say)

New York — C. R. Crosby and assistants report that these insects continue to be seriously troublesome in various parts of the State. In one case at Trumansburg 20,000 bushels of beans are infested."

Nebraska — M. H. Swenk (April 15). "Complaints of injury by stored-grain pests are decreasing in number. The bean weevil has, however, been more than usually obnoxious in stored beans, both in warehouses and homes."

Wisconsin — S. B. Fracker (March 17). "Complaints of damage from this source much more numerous than usual during the past winter."

WHITE-MARKED SPIDER BEETLE (Ptinus fur L.)

Wisconsin — S. B. Fracker (March 17). "Very numerous in clover seed at wholesale seed houses associated with other common stored-product pests."

South Dakota — H. C. Severin (April 22). "This insect was much more abundant last year than in former years. It did considerable harm to bags of flour and stored oats and barley over the eastern half of the State."

BLACK CARPET BEETLE (Attagenus piceus Oliv.)

New York — C. R. Crosby and assistants (March 15). "Reports of rather serious infestation of households were received from Rochester and Ithaca."

Trogoderma tarsale Mels.

Indiana — J. J. Davis (April 15). "Larvae reported as doing considerable damage to tomato seed by an Indianapolis seed house. Could get no specimens but from the description it was, apparently, Trogoderma tarsale."

MEDITERRANEAN FLOUR MOTH (Ephestia kuehniella Zell.)

Iowa. — F. D. Butcher (April 18). "Will insects have started to appear this spring. Complaints about the Mediterranean flour moth are most numerous. However, a few reports of the square-necked and saw-toothed grain beetles have been received."

INDIAN-MEAL MOTH (Plodia interpunctella Hbn.)

Delaware — C. O. Houghton. "Walnuts purchased at a local grocery store last fall were found to be 100 per cent infested by this insect."